

9 DECEMBER 2024

WEST ARUNTA PROJECT BENEFICIATION TESTWORK RESULTS

Highlights

- **Excellent beneficiation results from initial variability testing on a composite sample comprising three drillholes covering over 400m east-west extent in the northeast zone of Luni**
- **Locked cycle testing used the previously reported two-stage flotation regime and has returned a high-grade niobium concentrate with high recovery:**
Locked cycle concentrate (4th cleaner) 50% Nb₂O₅ at 58% recovery
- **Ongoing testwork is aiming to improve understanding of key geometallurgical characteristics of the deposit and pursue opportunities to optimise the beneficiation stage ahead of a detailed variability program**

WAI Resources Ltd (ASX: WAI) (**WAI** or **the Company**) is pleased to announce results from continued metallurgical testwork undertaken on niobium mineralisation from Luni at the 100% owned West Arunta Project in Western Australia.

WAI's Managing Director, Paul Savich, commented:

"This locked cycle testwork was based on samples from over 400m of strike extent across the key northeast zone of Luni. The results largely conform with the previously released single-hole beneficiation testwork and have produced further high-grade niobium concentrate with low impurities, at industry-comparable recovery rates.

"To have achieved this level of success using a two-stage flotation regime and within such a short period of time this year is very encouraging and provides confidence for our ongoing pre-development workstreams."

Metallurgical Discussion - Luni Carbonatite

Initial beneficiation testwork (refer to ASX announcement dated 19 June 2024) demonstrated that a two-stage flotation regime can produce a high-grade concentrate at industry-comparable recovery rates from Luni's mineralisation. The initial testwork used material from a single drillhole.

Since June 2024, the Company has continued testing this two-stage flotation regime at laboratories in Perth. **The results reported herein relate to recent beneficiation testwork using a composite of three drillholes from high-grade niobium mineralisation in the northeastern zone of the Luni deposit, which is the ongoing focus of pre-development workstreams.**

Within a conventional niobium flowsheet (i.e. used at the three existing operations), flotation is considered the key processing challenge to enable the commercial upgrade of ore to a concentrate. This concentrate must be suitable for refining through intermediate processing steps to create a clean, high-grade concentrate that can then be converted to a ferroniobium end-product.

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Assessing the impact of variable feed on the beneficiation step is imperative to understanding the amenability of niobium mineralisation to processing and for the development of a commercial process flowsheet. **These results demonstrate that the two-stage flotation regime can successfully treat a wider portion of mineralisation and provides confidence in progressing to more detailed optimisation and variability programs based on this flowsheet.**

Sample Selection

Three diamond holes (LUDD0040, 041 and 045) were drilled in the northeastern zone of Luni (Figure 1). The entire oxide mineralised zone from each drillhole was combined to form three composites hosting varying proportions of niobium bearing and gangue minerals.

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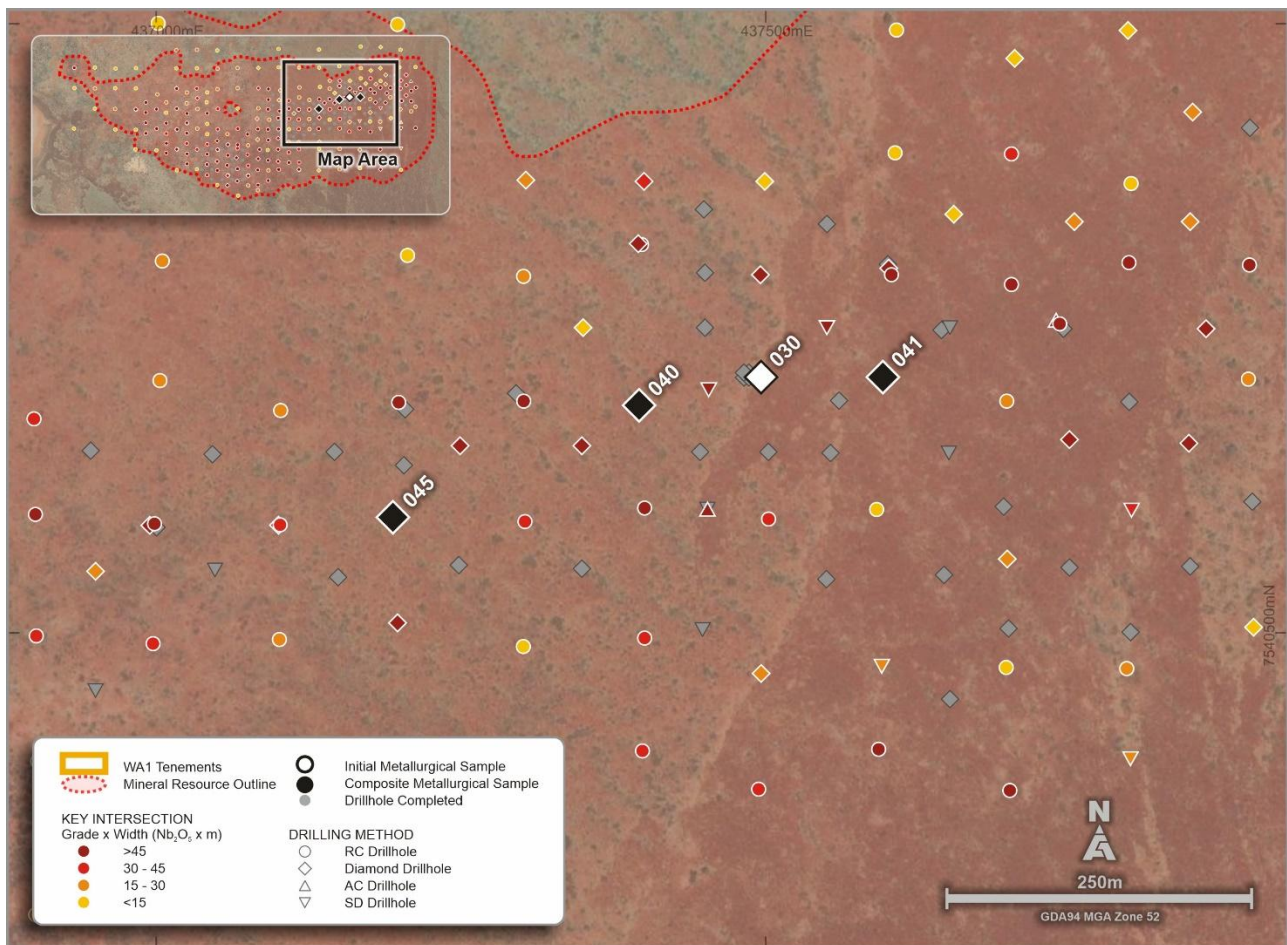


Figure 1: Location of drillholes composited for use in reported beneficiation testwork

Limited open cycle flotation tests were conducted on each individual drillhole sample, according to the regime utilised for LUDD23030 (refer to the ASX announcement on 19 June 2024), to assess the impact of the varying mineral compositions. The open cycle tests continued to demonstrate the ability to float the niobium bearing minerals and also provided important insight into how differing gangue mineral proportions respond within this flotation regime.

These three separate samples were then combined to form a blended composite that was taken into the locked cycle test reported herein. This composite sample was chosen as it is believed to be an appropriate representation of the dominant minerals present in this key initial pre-

development focus area of Luni (Figure 1). The sample locations are equidistant across an area where resource definition drilling has identified shallow, high-grade niobium mineralisation. This area is the focus of pre-development workstreams and may represent an ideal location for a potential start-up mining scenario.

A composite of approximately 36kg was prepared for the testwork program and was weighted according to meterage. The composited sample had a head grade of 3.8% Nb₂O₅. Details of the head assay, drillholes, and composite sample are presented in Table 1, Table 2 and Table 3, respectively.

Testwork Program

The locked cycle results presented herein were generated from testwork undertaken at a reputable laboratory in Perth, under the supervision of WA1 metallurgical staff.

The composite sample was ground to a target of 80% passing 90µm followed by desliming to remove ultra-fine particles. Flotation was then carried out using a two-stage method with an initial phosphate mineral pre-float, followed by direct niobium mineral flotation with four cleaning stages (Figure 2).

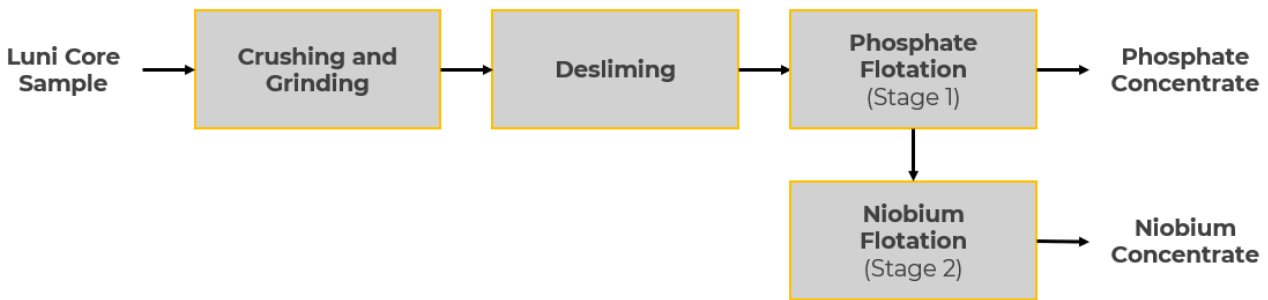


Figure 2: Simplified testwork flowsheet

A limited number of open cycle tests were conducted on this composite sample prior to the locked cycle and the results are considered unoptimised. Locked cycle testing is considered more representative of potential larger-scale plant performance. A total of seven cycles were completed in closed circuit to ensure steady state was achieved.

All flotation testwork has been conducted using Perth tap water with future testwork to assess the use of site water.

Testwork Results

The composite locked cycle test returned a **concentrate grade of 50.4% Nb₂O₅ at 57.6% recovery** after four stages of cleaning. Refer to Table 1 for the concentrate assay results. There remains potential for additional cleaning to increase the concentrate grade. Final target concentrate specifications for development scenarios will be addressed through future flowsheet development and grade-recovery trade-off analysis.

For comparison, the previously reported locked cycle on a single sample point achieved a concentrate grade of 57.9% Nb₂O₅ at 53.5% recovery. It is important to note the initial single hole test had an additional cleaning step compared to this composite test. A common characteristic of additional cleaning steps is to increase the concentrate grade with lower recoveries.

These results continue to demonstrate that high-grade niobium concentrate can potentially be produced at industry comparative recovery rates. Importantly, these tests used process steps adopted at existing niobium operations and were completed under flotation conditions considered practical for this stage of testwork.

Table 1: Niobium concentrate assays from the locked cycle test

	Nb ₂ O ₅ (%)	Ta (%)	SiO ₂ (%)	CaO (%)	Al ₂ O ₃ (%)	P ₂ O ₅ (%)	Fe ₂ O ₃ (%)	SrO (%)	U (ppm)	Th (ppm)	Pb (%)
Sample Feed for Composite Locked Cycle	3.8	<0.1	15.8	29.2	7.9	26.0	5.0	2.3	128	13	0.3
Composite Locked Cycle Concentrate (4th Cleaner)	50.4	<0.1	5.5	3.0	5.5	3.1	5.7	7.2	821	217	0.1

Percentages rounded to a single decimal point

Grade-recovery data for the previously reported single hole locked cycle test and the current composite locked cycle test are presented in Figure 3.

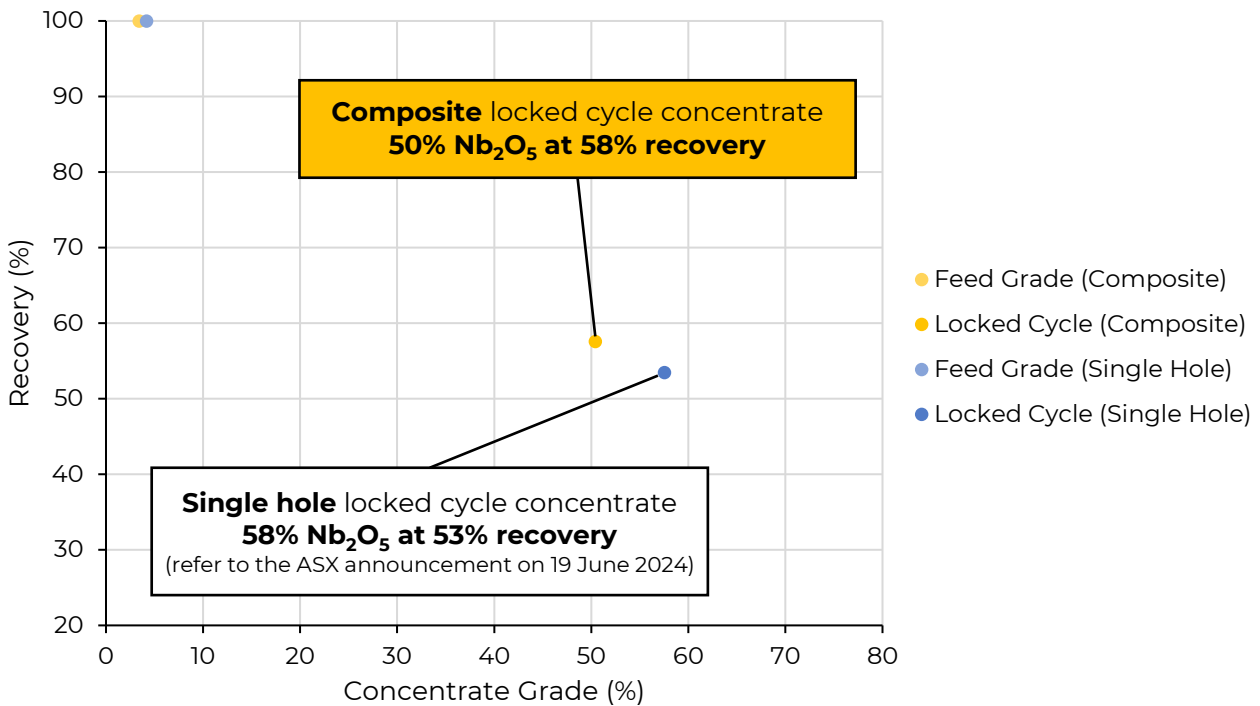


Figure 3: Grade recovery chart of the locked cycle (beneficiation step) tests

The locked cycle test also resulted in a 38.5% P₂O₅ concentrate at 81.6% recovery. The flowsheet used in this testwork program bears similarities to that utilised at the Catalão niobium and phosphate mine located in Brazil. The Company is yet to consider any potential economically viable opportunities to produce a commercial phosphate by-product at Luni.

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WAI's Niobium Processing Advisor, Clovis Sousa, commented:

"This initial variability testwork has demonstrated the Luni mineralisation from the northeastern zone continues to respond well to this two-stage flotation regime, producing high-grade niobium concentrates with low impurities and strong recovery characteristics.

"These results continue to compare well to existing global operations and provide confidence in our ability to potentially produce high-quality end-products in future testwork programs."

Ongoing & Future Testwork Programs

The Company is progressing beneficiation testwork on additional drillholes from a broader area of the northeastern focus zone. Open cycle tests are ongoing to optimise the flotation regime for varying proportions of gangue minerals and to assess how this may be dealt with in an operational scenario.

Additionally, the Company is continuing open cycle testwork for a variety of other purposes, including collector/reagent selection and the use of site water, ahead of detailed variability testwork planned for next year.

Drilling has been conducted to provide samples for planned detailed metallurgical variability testing, with approximately 30 drillholes completed for this next phase. The drillholes are spatially distributed over the northeastern zone and are planned to build on testwork completed to date.

Using this material, the Company intends to assess metallurgical variability across the northeast focus area to support flowsheet development, initial mine planning and various other workstreams and assessments. It is presently envisaged that investigations on other areas of the Luni deposit will also be undertaken in parallel to the above testwork.

Importantly, it is believed that opportunities exist to optimise the beneficiation process further, which will be considered as process development activities continue. The key identified opportunities potentially exist in the following areas:

- Comminution;
- Classification (including desliming);
- Flotation stages, cell types, reagents and conditions;
- Use of other beneficiation techniques (i.e. magnetic and gravity separation); and
- Techno-economic trade-off assessment between concentrate grades and recovery rates (i.e. accepting lower concentrate grades at higher recoveries or vice versa to maximise the economic outcome).

The outcomes of these programs and other future testwork programs will be reviewed and assessed to determine potential flowsheet optionality and optimisations.



Figure 4: Niobium flotation during locked cycle

ENDS

This Announcement has been authorised for market release by the Board of WA1 Resources Ltd.

For further information, please contact:

Investors

Paul Savich
Managing Director
T: +61 8 6478 7866
E: psavich@wa1.com.au

Media

Michael Vaughan
Fivemark Partners
T: +61 422 602 720
E: michael.vaughan@fivemark.com.au

Or visit our website at www.wa1.com.au

Competent Person Statement

The information in this announcement that relates to metallurgical testwork results is based on information compiled by Mr. Roy Gordon who is a Member of the Australian Institute of Mining and Metallurgy (AusIMM). Mr. Gordon is a full-time employee of WA1 Resources Ltd and has sufficient experience which is relevant to the information and activities under consideration to qualify as competent to compile and report such information. Mr. Gordon consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears.

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About WA1

WA1 Resources Ltd is an S&P/ASX 300 company based in Perth, Western Australia and trades under the code WA1.

WA1's objective is to discover and develop tier 1 assets, including the Luni niobium deposit, in Australia's underexplored regions and create value for all stakeholders. We believe we can have a positive impact on the remote communities within the lands on which we operate. We will execute our exploration and development using a proven leadership team which has a successful track record of working in WA's most remote regions.

Forward-Looking Statements

This ASX Release may contain certain "forward-looking statements" which may be based on forward-looking information that are subject to a number of known and unknown risks, uncertainties, and other factors that may cause actual results to differ materially from those presented here. Where the Company expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis. For a more detailed discussion of such risks and other factors, see the Company's Prospectus and Annual Reports, as well as the Company's other ASX Releases.



Readers should not place undue reliance on forward-looking information. The Company does not undertake any obligation to release publicly any revisions to any forward-looking statement to reflect events or circumstances after the date of this ASX Release, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws.

Table 2: Collar location of drillholes (metallurgical sample)

Hole ID	Drill Type	Easting	Northing	RL (m)	Dip (Degrees)	Azimuth (Degrees)	Depth (m)
LUDD0040	DD	437396	7540687	381	-60	180	89.3
LUDD0041	DD	437596	7540710	382	-60	180	115.9
LUDD0045	DD	437193	7540599	382	-60	180	70.8

Table 3: Composite sample details (metallurgical sample)

Hole ID	From (m)	To (m)	Interval (m)	Weighting (%)
LUDD0040	62.3	78.2	15.9	31
LUDD0041	86.0	111.0	25.0	48
LUDD0045	39.3	50.1	10.8	21

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JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

CRITERIA	COMMENTARY																				
Sampling techniques	<ul style="list-style-type: none"> Geological information and metallurgical testwork samples referred to in this ASX Announcement were derived from diamond drilling. Core samples were collected with a diamond drill rig and were PQ3 core diameter. The core was logged and photographed onsite and then transported to Bureau Veritas in Perth for cutting and sampling. Core was sampled for metallurgical testwork in its entirety to preserve sample integrity and maximise sample mass. At Bureau Veritas, the core was selected and composited based on assays from RC twin samples, pXRF analysis of intervals and/or geological logging to identify the mineralised zones and domains. The mineralised core was composited in its entirety within the selected domains. 																				
Drilling techniques	<ul style="list-style-type: none"> Diamond holes were drilled with PQ3 (83mm) rods. PQ core was triple tubed to enable increased core recovery. 																				
Drill sample recovery	<ul style="list-style-type: none"> The composite for the metallurgical testwork program reported covered the below intervals, noting there was some core loss: <table border="1" data-bbox="509 1048 1385 1240"> <thead> <tr> <th>Composite</th> <th>From (m)</th> <th>To (m)</th> <th>Interval (m)</th> <th>Core Loss (m)</th> </tr> </thead> <tbody> <tr> <td>LUDD0040</td> <td>62.3</td> <td>78.2</td> <td>15.9</td> <td>4.4</td> </tr> <tr> <td>LUDD0041</td> <td>86.0</td> <td>111.0</td> <td>25.0</td> <td>3.4</td> </tr> <tr> <td>LUDD0045</td> <td>39.3</td> <td>50.1</td> <td>10.8</td> <td>0.0</td> </tr> </tbody> </table> Additional laboratory assays were undertaken on the samples submitted for the testwork and showed good alignment to the resource definition assays. 	Composite	From (m)	To (m)	Interval (m)	Core Loss (m)	LUDD0040	62.3	78.2	15.9	4.4	LUDD0041	86.0	111.0	25.0	3.4	LUDD0045	39.3	50.1	10.8	0.0
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Logging	<ul style="list-style-type: none"> All samples used for the metallurgical testwork were geologically logged to a detail level to support the metallurgical studies. The samples were logged qualitatively and quantitatively in nature for geology, alteration, and mineralisation by the Company's geological personnel. Drill logs were recorded digitally and have been verified. Detailed logging of the diamond core was completed on site. 																				
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> At Bureau Veritas, the entire individual drill hole composites were stage crushed to P100 3.35mm, blended and homogenised and subsequently split into charges. Stage crushing was undertaken to minimise fines generation that may affect metallurgical testwork, whilst reducing top size which enabled representative sub-sampling to occur. The individual drill hole composites were dispatched to the laboratory where the testwork composite was prepared from individual drill hole composites. 																				
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> All assays reported were conducted by ALS Metallurgy by fused bead XRF, Leco and ICP-MS. Standard laboratory QAQC was undertaken and monitored by the laboratory and mass balances for each test reported by the 																				

CRITERIA	COMMENTARY
	laboratory were reconciled against the feed grade. This is subsequently reviewed by WA1 upon receipt of results.
Verification of sampling and assaying	<ul style="list-style-type: none"> Mineralised intersections have been verified against the downhole geology and pXRF analysis. Logging and sampling data was recorded digitally in the field.
Location of data points	<ul style="list-style-type: none"> Drillhole collars were initially surveyed and recorded using a handheld GPS. Drill collars are then surveyed with DGPS system at appropriate stages of the program. All co-ordinates are provided in the MGA94 UTM Zone 52 co-ordinate system with an estimated horizontal accuracy of $\pm 0.008\text{m}$ and an estimated vertical accuracy of $\pm 0.015\text{m}$ for the DGPS system. Azimuth and dip of the drillholes is recorded after completion of the hole using a gyro. A reading is taken every 30m with an assumed accuracy of ± 1 degree azimuth and ± 0.3 degree dip.
Data spacing and distribution	<ul style="list-style-type: none"> See drillhole table for hole position and details.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> The orientation of the oxide-enriched mineralisation is interpreted to be sub-horizontal and derived from weathering of primary mineralisation. The orientation of primary mineralisation is poorly constrained due to the limited number of drillholes that have penetrated to depth. See drillhole table for details regarding the orientation of the drillhole. Drillholes were designed based on interpretation from modelled geophysical data and results from drilling to date. Oxide mineralisation is currently interpreted as a sub horizontal oxide unit.
Sample security	<ul style="list-style-type: none"> Sample security is not considered a significant risk with WA1 staff present during collection. All geochemical samples were collected and logged by either WA1 staff or the laboratory.
Audits or reviews	<ul style="list-style-type: none"> The program and data is reviewed on an ongoing basis by senior WA1 personnel.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

CRITERIA	COMMENTARY
Mineral tenement and land tenure status	<ul style="list-style-type: none"> All work completed and reported in this ASX Announcement was completed on E80/5173 which is 100% owned by WA1 Resources Ltd. The Company also currently holds an extensive package of Exploration Licences (both granted and applications) within the area of the West Arunta Project.
Exploration done by other parties	<ul style="list-style-type: none"> The West Arunta Project has had limited historic work completed within the Project area, with the broader area having exploration focused on gold, base metals, diamonds and potash. Significant previous explorers of the Project area include Beadell Resources and Meteoric Resources. Only one drill hole (RDD01) had been completed within the tenement area by Meteoric in 2009

CRITERIA	COMMENTARY
	<p>(located approximately 17km southwest of the Luni deposit), and more recently additional drilling nearby the Project has been completed by Encounter Resources Ltd.</p> <ul style="list-style-type: none"> ▪ Most of the historic work was focused on the Urmia and Sambhar Prospects with historic exploration (other than RDD01) being limited to geophysical surveys and surface sampling. ▪ Historical exploration reports are referenced within the WA1 Resources Ltd Prospectus dated 29 November 2021 which was released by ASX on 4 February 2022. ▪ Encounter Resources are actively exploring on neighbouring tenements and have reported intersecting similar geology, including carbonatite rocks.
Geology	<ul style="list-style-type: none"> ▪ The West Arunta Project is located within the West Arunta Orogen, representing the western-most part of the Arunta Orogen which straddles the Western Australia-Northern Territory border. ▪ Outcrop in the area is generally poor, with bedrock largely covered by Tertiary sand dunes and spinifex country of the Gibson Desert. As a result, geological studies in the area have been limited, and a broader understanding of the geological setting is interpreted from early mapping as presented on the MacDonald (Wells, 1968) and Webb (Blake, 1977 (First Edition) and Spaggiari et al., 2016 (Second Edition)) 1:250k scale geological map sheets. ▪ The West Arunta Orogen is considered to be the portion of the Arunta Orogen commencing at, and west of, the Western Australia-Northern Territory border. It is characterised by the dominant west-north-west trending Central Australian Suture, which defines the boundary between the Aileron Province to the north and the Warumpi Province to the south. ▪ The broader Arunta Orogen itself includes both basement and overlying basin sequences, with a complex stratigraphic, structural and metamorphic history extending from the Paleoproterozoic to the Paleozoic (Joly et al., 2013).
Drill hole Information	<ul style="list-style-type: none"> ▪ Refer to Table 2 for drill hole details.
Data aggregation methods	<ul style="list-style-type: none"> ▪ Not applicable as drilling results are not being reported in this announcement. ▪ No metal equivalents have been reported.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> ▪ Not applicable as drilling results are not being reported in this announcement.
Diagrams	<ul style="list-style-type: none"> ▪ Refer to figures provided within this ASX announcement.
Balanced reporting	<ul style="list-style-type: none"> ▪ All relevant information has been included and provides an appropriate and balanced representation of the results.
Other substantive exploration data	<ul style="list-style-type: none"> ▪ All meaningful data and information considered material, relevant and complete has been reported.
Further work	<ul style="list-style-type: none"> ▪ Further interpretation of drill data and assay results will be completed over the coming months, including ongoing



CRITERIA	COMMENTARY
	<p>petrographic and mineralogical analysis.</p> <ul style="list-style-type: none">▪ Planning and implementation of further metallurgical and exploration drilling is in progress and analysis of existing drill samples is ongoing.▪ Further metallurgical studies are in progress and engineering factors are under consideration.▪ Work on the project is ongoing on multiple fronts.

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